

REMARKS**Status of the Claims**

With the entry of this amendment, the status of the claims will be as follows:

Claims **1, 3, 4, 7, 9, 14, 15, 23** and **24** are currently amended herein.

Claims **2, 5, 6, 8, 10, 12, 13, 16-22** and **25-27** were previously presented and are unchanged (original).

Claims **11** and **28** are cancelled.

This amendment to the claims is fully supported by the specification as originally filed. The claim amendments do not introduce new matter. These amendments are made without prejudice and are not to be construed as abandonment of previously claimed subject matter or acquiescence to any objection or rejection of record. The locations of support in the specification for the amendments to the claims is provided in the table below.

Claim Number	Location of Support in the Specification
1, 9, 15, 23 with respect to: “ <i>p</i> -acetyl-L-phenylalanine”	See, <i>e.g.</i> , paragraph 0013, and Example 1 at para. 152-169
1, 9, 15, 23 with respect to: “translation system”	See, <i>e.g.</i> , paragraphs 0013, 0022, 0028, 0050, 0051 and 0066.
1, 9, 15, 23 with respect to: SEQ ID NOS: 18-20	See, <i>e.g.</i> , paragraphs 0011, 0013, 0015, 0017, 0019, 0066, 0164 (and table therewith) and the Table at page 77-78.
3	Amendment corrects a typographical error of obvious nature. The term <i>Methanococcus</i> is shown correctly throughout the specification, for example, paragraphs 0035, 0073, 0075 and 0164.
4	Supported throughout, <i>e.g.</i> , paragraphs 0012, 0013, 0075, 0164 and 0165.
7	Amendment made to show proper antecedent.
14, 15 with respect to: “at least one”	See, <i>e.g.</i> , paragraphs 0013, 0019, 0076, 0120, 0131, 0145 and 0146.
23 with respect to: “defined position” or “specified position”	See, <i>e.g.</i> , paragraphs 0019, 0057, 0077 and 0131.

Claim Number	Location of Support in the Specification
23 with respect to: “appropriate medium”	See, <i>e.g.</i> , paragraphs 0019, 0131 and 0133.
24	See, <i>e.g.</i> , paragraphs 0011, 0013, 0015, 0017, 0036, 0066 and 0102-0105.

Applicants respectfully request entry of the amendment prior to substantive examination of the claims.

Response to the Request for Restriction

In the Office Action dated December 15, 2006, the Examiner requested restriction to one of the following groups of claims:

- Group 1: Claims 2-8 and 17, as they apply to SEQ ID NO: 18. Claim 1 is a linking claim for this group.
- Group 2: Claims 2-8 and 17, as they apply to SEQ ID NO: 19. Claim 1 is a linking claim for this group.
- Group 3: Claims 2-8 and 17, as they apply to SEQ ID NO: 20. Claim 1 is a linking claim for this group.
- Group 4: Claims 10-16, as they apply to SEQ ID NO: 18. Claim 9 is a linking claim for this group.
- Group 5: Claims 10-16, as they apply to SEQ ID NO: 19. Claim 9 is a linking claim for this group.
- Group 6: Claims 10-16, as they apply to SEQ ID NO: 20. Claim 9 is a linking claim for this group.
- Group 7: Claims 18-22, as they apply to SEQ ID NO: 18. Claim 18 is a linking claim for this group.
- Group 8: Claims 18-22, as they apply to SEQ ID NO: 19. Claim 18 is a linking claim for this group.
- Group 9: Claims 18-22, as they apply to SEQ ID NO: 20. Claim 18 is a linking claim for this group.
- Group 10: Claims 24-28, as they apply to SEQ ID NO: 18. Claim 23 is a linking claim for this group.
- Group 11: Claims 24-28, as they apply to SEQ ID NO: 19. Claim 23 is a linking claim for this group.
- Group 12: Claims 24-28, as they apply to SEQ ID NO: 20. Claim 23 is a linking claim for this group.

Applicants hereby elect the claims of Group 1 (claims 2-8 and 17 as they apply to SEQ ID NO: 18, where claim 1 is a linking claim for this group) for prosecution, with traverse. Thus, claims 1-8 and 17 will be examined on the merits. Under USPTO linking claim practice, if the linking claim (claim 1) is found allowable, the restriction of linked *groups of*

claims is withdrawn, and the claims in the remaining linked, non-elected groups are rejoined for examination. However, in the Office Action, the Examiner does not state explicitly what *groups* are linked to claim 1. However, it appears that the Examiner intends to join Groups 2 and 3, in the event that claim 1 is found allowable. Thus, if claim 1 is found allowable as it applies to SEQ ID NO: 18, claims 1-8 and 17 will also be examined as they apply to SEQ ID NOS: 19 and 20. This end result will effectively resemble an election of species requirement. Applicants respectfully request clarification from the Examiner.

Applicants have amended claims 1, 3, 4 and 7 in Group 1. Applicants request that examination of the elected group proceed with the currently amended form of claims 1-8 and 17.

Traversal

Traversal of the request for restriction is made in view of the amended form of the claims. The present application is a United States national phase entry application under 35 U.S.C. § 371. As such, this application is subject to the requirement for Unity of Invention. In the Office Action, the Examiner found alleged lack of Unity of Invention because the technical feature of the orthogonal aminoacyl-tRNA synthetase (O-RS) is allegedly not a special technical feature defined by PCT Rule 13.2.

Applicants disagree, and point out that the presently amended form of the claims removes any ambiguity in interpretation of the claim language that may have been present, and may have resulted in the finding of lack of Unity of Invention. For example, all claims now require that the keto amino acid be *p*-acetyl-L-phenylalanine. Also, amendment of the claims removes any alternative meanings that may have existed with the expression "an amino acid sequence" as found in originally filed claim 1, as pointed out by the Examiner.

The Examiner states that the O-RS sequences of SEQ ID NOS: 18, 19 and 20 are distinct structures with distinct functions. Applicants disagree. The three novel synthetase variants are highly related to each other, where they differ from each other at not more than five amino acid positions. Furthermore, each of these novel polypeptides has the same function, *i.e.*, charges an orthogonal tRNA with the keto amino acid *p*-acetyl-L-phenylalanine. Searching these three sequences is not an undue burden.

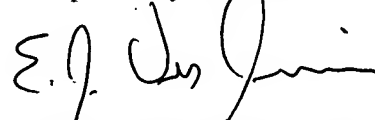
Applicants believe that all currently pending claims (in their amended form) share the O-RS as a special technical feature, and thus comply with the requirement for Unity of Invention under PCT Rule 13. The Examiner has required restriction of product and process claims, and further restricted the product claims that are directed to polypeptides, polynucleotides and cells. Such a restriction is improper under PCT practice where the claims are unified by a special technical feature (namely, the O-RS).

Applicants believe that all currently pending claims are unified by a special technical feature, and thus comply with the requirement for Unity of Invention under PCT Rule 13. **Thus, in view of the remarks above, Applicants respectfully request that all groups (including claims 1-10 and 12-27, as they apply to SEQ ID NOS: 18-20) be examined on the merits.**

If a telephone conference would expedite the prosecution of this application, Applicants encourage the Examiner to telephone the undersigned at (510) 769-3502.

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Respectfully submitted,



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Attachments:

- 1) A petition to extend the period of response for **one** month;
- 2) Change in Entity Status letter;
- 3) A transmittal sheet;
- 4) A fee transmittal sheet;
- 5) A receipt indication postcard.